

REMARKS

Claims 1-28 are pending. By this Amendment, claims 1, 2, 18, 19, and 28 are amended. No new matter will be incorporated into the present application by entry of this Amendment. If the Office determines that any additional fees are deemed to be necessary with the filing of this Amendment, then the Office is authorized and requested to charge such fees to Deposit Account No. 061910.

The Examiner rejected claims 1-7, 9-22, and 24-28 under 35 U.S.C. §103(a) as being unpatentable over Smith (UK Patent No. 2,145,257). The Examiner also rejected claims 7 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Smith as applied to claims 6 and 21 and further in view of Welch et al. (U.S. Patent No. 4,121,204); rejected claims 26 and 27 under 35 U.S.C. §103(a) as being unpatentable over Smith as applied to claims 18 and 19 and further in view of Yamagishi et al. (U.S. Patent No. 6,178,338); and rejected claim 28 under 35 U.S.C. § 101. Applicant respectfully requests reconsideration in light of the following remarks.

The independent claims (claims 1, 2, 18, and 19) have each been amended to emphasize the variable number of items, the variable number of regions corresponding to the variable number of items and the arrangement of these regions along a continuous loop-shaped line.

The cited references fail to disclose these claim limitations. Smith is directed to a system for selecting items from a display using a selector that is separate from the display, particularly for persons who may have difficulty in operating a keyboard. *See, e.g., page 1, line 19 of Smith specification.* The solution provided by Smith is to provide an input means having a fixed, and limited, number of actuatable elements, which may be mapped to a similarly fixed and limited number of selections. According to the disclosure of Smith, and contrary to the present invention, Smith teaches the use of a fixed number of mechanical switches that may correspond

to a number of selectable input sections which are statically mapped to a number of display regions. However, contrary to the instant invention, as presently claimed, the Smith reference fails to disclose or suggest a variable number of sections in the input means. Given a particular hardware configuration, (e.g., four switches), the number of selectable input sections is fixed. While the Smith reference discloses the use of two simultaneous switches to select an input section between two switches, nonetheless Smith teaches the use of a fixed, and not variable, number of selectable input regions that are a function of the fixed number of switches. The user is in effect always choosing from the same number of input sections—even if some of the input sections do not correspond to any selectable display region.

Given the absence of a variable number of input sections in the Smith reference, the Smith reference further fails to describe or suggest a device in which a variable number of input sections is provided that is equal to the variable number of selectable items, as currently claimed by the Applicant. The instant invention claims an equivalent, that is, a one-to-one, mapping of, input sections to selectable items, that is not provided by the Smith reference, either alone or in combination with the other cited references. The illustration of Figures 6 through 9 of the Smith reference is instructive in this regard: Smith teaches a device in which four input sections are used to select, through a series of steps, one of 64 selectable display items. This provides a system in which the number of input sections is equal to the number of selectable items only when the number of selectable items is four, given that particular hardware configuration. Because given a particular input configuration, there is only one number of selectable items that will yield equality between the number of input sections and the number of selectable items, Smith fails to disclose a method of allowing a user to select one of a variable number of items by selecting *a respective one of said sections*, i.e., using an equivalent and similarly variable number

of input sections. The equivalence of the variable number of input sections and variable selectable items is crucial, as the present invention eliminates the inconvenience of multiple narrowing (or "drilling down") among a non-hierarchical set to select among a group of selectable elements as made necessary by the Smith reference. The instant invention provides such equivalence over a range of set populations, i.e., a variable number, rather than solely for a population corresponding to the particular hardware configuration in use. For example, if the user was to select among displayed numbers 1-12 and wished to select number 2, the numbers could be arranged to correspond to input selections for 1-3, 4-6, 7-9, and 10-12. After selecting the subset of the numbers 1-3, the user will be faced with 3 selections, 1, 2, and 3. Regardless of the arrangement of these selectable items, the number of input sections, 4, will not be equal to the number of selectable items, as claimed in the current invention.

In the latter step necessary according to the disclosure of Smith, and contrary to the claimed invention, when the number of items of the display area of Smith are less than the number of switches (or fixed multi-switch selection positions), the number of input selections is unchanged, even if some of those input sections do not correspond to an item (i.e., are "blank"), for example, the selection of one of three items with a four-switch configuration. When the invention of Smith is used to select items from among a set that is not a multiple of the fixed number of switches (or switch combinations), the switch input device corresponding to this display yields a situation where some of the input positions did not correspond to any selectable item.

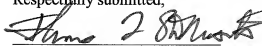
To the extent that Smith discloses a system in which "each section corresponds to a respective region" as asserted by the Examiner, neither the number of input sections nor the number of display regions is variable. If the number of display regions was in fact variable,

given the fixed configuration of the hardware input sections, the arrangement of a number of display regions that differs from the non-variable input sections would destroy the mapping between the input sections and the corresponding display region (i.e., an arrangement of the sections according to the arrangement of the regions. Accordingly, Smith fails to disclose or make possible a method as currently claimed by Applicant, in which the variable number of sections are equivalent to a variable number of items, and further providing for an *arrangement of the sections according to the arrangement of said regions of the display area*, each corresponding to a respective region.

A prima facie case of obviousness with respect to the amended claims would also not be established because there is no suggestion or motivation in the cited references to modify or combine Smith with Yamagishi or any other reference in the art in any way that would result in the method and device Applicant currently claims. Quite to the contrary, Smith teaches away from the claimed method and device. Smith clearly teaches that there are a fixed number of switches and that the items to be selected must be grouped into a corresponding fixed number of groups, and displayed on the display with direct correspondence to the arrangement of individual selectable switches. Accordingly, Smith, alone or in combination with another cited reference, does not permit a variable number of items to be displayed with the data input means being divided into a corresponding, variable, number of sections for selection of the items.

In view of the foregoing, it is submitted that the claims of the application are in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested. The Examiner is invited to telephone the undersigned if the Examiner believes it would be useful to advance prosecution.

Respectfully submitted,



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